

Claims:

1. A vaccine formulation comprising a malaria antigen and an immunostimulatory
5 CpG oligonucleotide.
2. A vaccine as claimed in claim 1 wherein the antigen is selected from the group,
RTS, RTS*, TRAP or immunologically equivalent derivatives thereof.
3. A vaccine as claimed in claim 1 or 2 wherein the vaccine comprises TRAP or
immunologically equivalent derivative and one of RTS or RTS*.
- 10 4. A vaccine formulation as claimed herein additionally comprising an aluminium
salt, 3 de-O-acylated monophosphoryl lipid A or a saponin adjuvant.
5. A vaccine as claimed herein wherein the oligonucleotide comprises two CpG
dinucleotides.
6. A vaccine as claimed herein wherein the CpG oligonucleotide is between 15-45
15 nucleotides in length.
7. A vaccine as claimed herein wherein the CpG oligonucleotide comprises at least
one phosphorothioate internucleotide bond.
8. A vaccine as claimed herein wherein the oligonucleotide is selected from the
group:

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| Oligo (internal designation) | 5'-SEQUENCE-3' | CpG | Thio |
|------------------------------|---|-----|------|
| WD1001 | TCC ATG ACG TTC CTG ACG TT | + | + |
| WD1002 | TCT CCC AGC GTG CGC CAT | + | + |
| WD1003 | ACC GAT AAC GTT GCC GGT GAC G | + | - |
| WD1004 | G*G*G GTC AAC GTT GAG* G*G*G* G*G | + | Mix |
| WD1005 | TCC ATG AGC TTC CTG AGC TT | - | + |
| WD1006 | TCC ATG ACG TTC CTG ACG TT | + | - |
| WD1007 | ACC GAT GAC GTC GCC GGT GAC GGC ACC ACG | + | + |
| | TCG TCG TTT TGT CGT TTT GTC GTT | + | + |

9. A method for the prevention or amelioration of plasmodium infection in a patient, comprising administering an effective amount of a vaccine of any one of claims 1 to 8 to a patient.
- 5 10. A vaccine as claimed herein for use as a medicament.
11. A method of producing a vaccine as claimed in any one of claims 1 to 8 comprising admixing a malarial antigen and a CpG immunostimulatory oligonucleotide.
- 10 12. A method for the prevention or amelioration of plasmodium infection in a patient, comprising administering an effective amount of a CpG oligonucleotide followed after a suitable time by an effective amount of a malaria antigen.

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